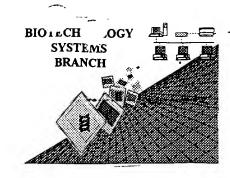
RAW SEQUENCE LISTING ERROR REPORT



The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

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Date Processed by STIC:

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FOR CRF SUBMISSION QUESTIONS, PLEASE CONTACT MARK SPENCER, 703-308-4212.

FOR SEQUENCE RULES INTERPRETATION, PLEASE CONTACT ROBERT WAX, 703-308-4216. PATENTIN 2.1 e-mail help: patin21help@uspto.gov or phone 703-306-4119 (R. Wax) PATENTIN 3.0 e-mail help: patin30help@uspto.gov or phone 703-306-4119 (R. Wax)

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE CHECKER VERSION 3.0 PROGRAM, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW:

Checker Version 3.0

The Checker Version 3.0 application is a state-of the-art Windows based software program employing a logical and intuitive user-interface to check whether a sequence listing is in compliance with format and content rules. Checker Version 3.0 works for sequence listings generated for the original version of 37 CFR §§1.821 – 1.825 effective October 1, 1990 (old rules) and the revised version (new rules) effective July 1, 1998 as well as World Intellectual Property Organization (WIPO) Standard ST.25.

Checker Version 3.0 replaces the previous DOS-based version of Checker, and is Y2K-compliant. Checker allows public users to check sequence listings in Computer Readable form (CRF) before submitting them to the United States Patent and Trademark Office (USPTO). Use of Checker prior to filing the sequence listing is expected to result in fewer errored sequence listings, thus saving time and money.

Checker Version 3.0 can be down loaded from the USPTO website at the following address: http://www.uspto.gov/web/offices/pac/checker

1646

RAW SEQUENCE LISTING

DATE: 11/16/2000

PATENT APPLICATION: US/09/596,141

TIME: 16:24:35

Input Set : A:\CVT 203.txt

Output Set: N:\CRF3\11162000\I596141.raw

Does Not Comply Corrected Diskette Needed

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DATE: 11/16/2000 TIME: 16:24:35

Input Set : A:\CVT 203.txt
Output Set: N:\CRF3\11162000\1596141.raw

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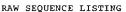




DATE: 11/16/2000 TIME: 16:24:35 RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/596,141

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Output Set: N:\CRF3\11162000\1596141.raw

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PATENT APPLICATION: US/09/596,141

DATE: 11/16/2000 TIME: 16:24:35

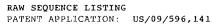
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Output Set: N:\CRF3\11162000\I596141.raw

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sel iten 10 m Even Summary Heat



DATE: 11/16/2000 TIME: 16:24:35

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Output Set: N:\CRF3\11162000\1596141.raw

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540 Thr Asn Val Asn Ser Ser Ser Ser Ser Thr Gln Ile Tyr Gln Ala Val
542 290 295 300
546 Ser Arg Ile Val Cys Gly His Pro Glu Gly Gly Gly Leu Lys Ile Lys 548 305 310 310 320
552 Ser Leu Asn Trp Tyr Glu Asp Asn Asn Tyr Lys Ala Leu Phe Gly Gly
```

MI:

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.



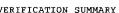
VERIFICATION SUMMARY
PATENT APPLICATION: US/09/596,141

DATE: 11/16/2000 TIME: 16:24:36

Input Set : A:\CVT 203.txt

Output Set: N:\CRF3\11162000\1596141.raw

L:25 M:270 C: Current Application Number differs, Replaced Application Number L:27 M:271 C: Current Filing Date differs, Replaced Current Filing Date L:397 M:258 W: Mandatory Feature missing, <220> not found for SEQ 1D#:1 L:397 M:258 W: Mandatory Feature missing, <221> not found for SEQ 1D#:1 L:397 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:1 L:397 M:258 W: Mandatory Feature missing, <223> not found for SEQ ID#:1 L:397 M:340 W: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:1 $L:401\ M:258\ W:$ Mandatory Feature missing, <220> not found for SEQ ID#:1 L:401 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:1 L:401 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:1 L:401 M:258 W: Mandatory Feature missing, <223> not found for SEQ ID#:1 M:340 Repeated in SegNo=1 L:403 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:1 L:403 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:1 L:403 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:1 L:403 M:258 W: Mandatory Feature missing, <223> not found for SEQ 1D#:1 L:1366 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:4 L:1366 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:4 $T_r:1366~M:258~W:$ Mandatory Feature missing, <222> not found for SEQ ID#:4 L:1366 M:258 W: Mandatory Feature missing, <223> not found for SEQ ID#:4 L:1366 M:340 W: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:4 I::1368 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:4 L:1368 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:4 L:1368 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:4 L:1368 M:258 W: Mandatory Feature missing, <223> not found for SEQ ID#:4 M:340 Repeated in SeqNo=4 L:1370 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:4 L:1370 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:4 L:1370 M:258 W: Mandatory Feature missing, <222> not found for SEQ 1D#:4 I.:1370 M:258 W: Mandatory Feature missing, <223> not found for SEQ ID#:4 L:1372 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:4 L:1372 M:258 W: Mandatory Peature missing, <221> not found for SEQ ID#:4 L:1372 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:4 L:1372 M:258 W: Mandatory Feature missing, <223> not found for SEQ ID#:4 L:1578 M:258 W: Mandatory Feature missing, <220> not found for SEQ 1D#:6 L:1578 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:6 L:1578 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:6 L:1578 M:258 W: Mandatory Feature missing, <223> not found for SEQ ID#:6 L:1578 M:340 W: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:6 L:1582 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:6 L:1582 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:6 L:1582 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:6 L:1582 M:258 W: Mandatory Feature missing, <223> not found for SEQ ID#:6 M:340 Repeated in SeqNo=6 L:1584 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:6 $L\!:\!1584$ M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:6 L:1584 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:6 h:1584 M:258 W: Mandatory Feature missing, <223> not found for SEQ ID#:6



VERIFICATION SUMMARY
PATENT APPLICATION: US/09/596,141

DATE: 11/16/2000 TIME: 16:24:36

Input Set : A:\CVT 203.txt
Output Set: N:\CRF3\11162000\I596141.raw

L:1943 M:258 W: Mandatory	Feature	missing,	<220>	not	Lound	for S	ΕQ	ID#:7
L:1943 M:258 W: Mandatory 1	Feature	missing,	<221>	not	found	for S	EQ	ID#:7
L:1943 M:258 W: Mandatory 1	Feature	missing,	<222>	not	found	for S	EQ	ID#:7
L:1943 M:258 W: Mandatory	Feature	missing,	<223>	not	found	for S	ΕQ	ID#:7
L:1943 M:340 W: (46) "n" O	r: "Xaa"	used: Fea	ture r	equi	red, f	or se	Q I	D#:7
L:1947 M:258 W: Mandatory 1	Feature	missing,	<220>	not	found	for S	EQ	TD#:7
L:1947 M:258 W: Mandatory D	Feature	missing,	<221>	not	found	for S	EQ	ID#:7
L:1947 M:258 W: Mandatory	Feature	missing,	<222>	not	found	for s	EQ	ID#:7
L:1947 M:258 W: Mandatory	Feature	missing,	<223>	not	found	for S	ΕQ	ID#:7
M:340 Repeated in SeqNo=7								
L:3171 M:258 W: Mandatory I	Feature	missing,	<220>	not	found	for S	ΕQ	ID#:9
L:3171 M:258 W: Mandatory I	Feature	missing,	<221>	not	found	for S	EQ	ID#:9
L:3171 M:340 W: (46) "n" of	r "Xaa"	used: Fea	ture r	equi	red, i	or SE	Q I	D#:9
M:340 Repeated in SeqNo≈9								

ERROR DETECTED SUGGESTED CORRECTION

1	Wrapped Nucleics	PLEASE DISREGARD ENGLISH "ALPHA" HEADERS, WHICH WERE INSERTED BY PTO SOFTWARE The number/text at the end of each line "wrapped" down to the next line.
·	_ ****opped*******************************	This may occur if your file was retrieved in a word processor after creating it.
		Please adjust your right margin to .3, as this will prevent "wrapping".
2	_ Wrapped Aminos	The amino acid-number/text at the end of each line "wrapped" down to the next line.
		This may occur if your file was retrieved in a word processor after creating it.
		Please adjust your right margin to .3, as this will prevent "wrapping".
3	Incorrect Line Length	The rules require that a line not exceed 72 characters in length. This includes spaces.
4	Misaligned Amino Acid Numbering	The numbering under each 5th amino acid is misaligned. This may be caused by the use of tabs between the numbering. It is recommended to delete any tabs and use spacing between the numbers.
r	-	
5	Non-ASCII	This file was not saved in ASCII (DOS) text, as required by the Sequence Rules. Please ensure your subsequent submission is saved in ASCII text, so that it can be processed.
6	Variable Length	Sequence(s) contain n's or Xaa's which represented more than one residue.
		As per the rules, each n or Xaa can only represent a single residue.
		Please present the maximum number of each residue having variable length and
		indicate in the (ix) feature section that some may be missing.
7	Patentln ver. 2.0 "bug"	A "bug" in PatentIn version 2.0 has caused the <220>-<223> section to be missing from amino acid
	-	sequence(s) Normally, Patentln would automatically generate this section from the
		previously coded nucleic acid sequence. Please manually copy the relevant <220>-<223> section to the subsequent amino acid sequence. This applies primarily to the mandatory <220>-<223>
		sections for Artificial or Unknown sequences.
8	Skipped Sequences	Sequence(s) missing. If intentional, please use the following format for each skipped sequence:
· —	(OLD RULES)	(2) INFORMATION FOR SEQ ID NO:X:
	(OLD NOLLO)	(i) SEQUENCE CHARACTERISTICS:(Do not insert any headings under "SEQUENCE CHARACTERISTICS")
		(xi) SEQUENCE DESCRIPTION:SEQ ID NO:X:
		This sequence is intentionally skipped
	٠.	Please also adjust the "(iii) NUMBER OF SEQUENCES:" response to include the skipped sequence(s).
9	Skipped Sequences	Sequence(s) missing. If intentional, please use the following format for each skipped sequence.
	(NEW RULES)	<210> sequence id number
- 1		\$400> sequence id number
		000
10	Use of n's or Xaa's	Use of n's and/or Xaa's have been detected in the Sequence Listing.
	(NEW RULES)"	Use of <220> to <223> is MANDATORY if n's or Xaa's are present.
	() =	In <220> to <223> section, please explain location of n or Xaa, and which residue n or Xaa represents.
11	Use of <213>Organism	Sequence(s) are missing this mandatory field or its response.
	(NEW RULES)	
12	Use of <220>Feature	Sequence(s) are missing the <220>Feature and associated headings.
	(NEW RULES)	Use of <220> to <223> is MANDATORY if <213>ORGANISM is "Artificial" or "Unknown"
	•	Please explain source of genetic material in <220> to <223> section.
	•	(See "Federal Register," 6/01/98, Vol. 63, No. 104, pp. 29631-32) (Sec. 1.823 of new Rules
13	Patentin ver. 2.0 "bug"	Please do not use "Copy to Disk" function of PatentIn version 2.0. This causes a corrupted
	Dimmer Co	Title, Tesalting in missing mandatory numeric identifiers and responses (as indicated on raw sequence tisting).
	•	Instead, please use "File Manager" or any other means to copy file to floppy disk.